



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,410	11/18/2003	Robert B. Chaffee	C0852-703030	7257
37462	7590	09/19/2006	EXAMINER	
LOWRIE, LANDO & ANASTASI RIVERFRONT OFFICE ONE MAIN STREET, ELEVENTH FLOOR CAMBRIDGE, MA 02142			SAFAVI, MICHAEL	
			ART UNIT	PAPER NUMBER
			3673	

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,410

Applicant(s)

CHAFFEE, ROBERT B.

Examiner

M. Safavi

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) 17-65 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 66-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Information Disclosure Statement

Applicant's reference to various PCT applications on page 2 of the IDS submitted August 02, 2004 has been noted. And, Applicant's remarks in the response of May 08, 2006 with regard to the noted PCT applications have been reviewed. However, Application PCT/US03/37230 does not appear as corresponding to the instant Application. Application PCT/US03/01416 does not appear as corresponding to the parent-application 10/430,040. And, Application PCT/US02/21756 does not appear as corresponding to the parent-application 10/192,757.

Specification

The disclosure is objected to because of the following informalities: reference numeral 80 appears as denoting a "valve assembly" as well as a "projecting arm".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 69 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had

possession of the claimed invention. The specification does not appear to have originally presented a valve having a "self-closing" cover as now appears recited in claim 69.

Applicant's argument with respect to the recitation found in claim 69 is not persuasive. Applicant makes reference to "enablement" which has not formed the basis of the rejection under 35 U.S.C. 112, first paragraph. Rather, the rejection sets forth that the subject matter of claim 6 was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. Applicant argues "without any external aid" or "requiring no external force". However, such explanations appear to be Applicant's own definition of what "self-closing" defines. And, it is not necessarily apparent that the specification defines a "cover" that "returns, without any external aid" or "[requires]...no external force". Otherwise, it is not apparent as to what forces Applicant is making reference. And, Applicant's arguments as from the bottom of page 14 to the top of page 15 of the response appears directed to the intended operation and effect of the "cover" rather than to support for "self-closing". In other words, the disclosed "cover" may operate in the same manner and have the same effect with any given closing means.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 7, 10, 11, 13-15, 66, 67, and 69 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,175,297 to Robbins et al. As for claims 1, 7, 13, 66, and 67, Robbins et al. '297 discloses, Figs. 1 and 6, an inflatable device, comprising an inflatable bladder 10 and a fluid controller 30/40/60 comprising a valve, (within 40), coupled to the inflatable bladder 10. The valve is configured and arranged to control the flow of fluid into and out of the bladder. The valve comprises a diaphragm 42, 53 with a "self-closing" cover 43/44, 54, 55, (hingedly coupled to the "device", claim 66). An electro/mechanical device 48 is configured and arranged to open the valve when the electro/mechanical device is actuated. As for claim 10, pump is at 40. As for claims 14 and 15, supplemental material of the mattress 10 can be any portion thereof with a portion 26, 28 of the fluid controller at least partially supported by the supplemental material. As for claim 11, pump 40 is housed in an acoustically insulative material by virtue of the pump being surrounded by the housing 48.

Claims 1-6, 10, 11, 13-15, and 67-69 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,073,289 to Bolden et al. As for claims 1, 13,

Art Unit: 3673

and 67, Bolden et al. '289 discloses, Figs. 1, 5, and 8, an inflatable device, such as a mattress, comprising an inflatable bladder 22 and a fluid controller comprising a valve 142 coupled to the inflatable bladder 22. The valve is configured and arranged to control the flow of fluid into and out of the bladder. The valve comprises a diaphragm 174 with a "self-closing" cover 164. A mechanical device 170 is configured and arranged to open the valve when the device is actuated. As for **claim 10**, pump is at 82. As for **claims 14 and 15**, supplemental material of the mattress 22/24 can be any portion thereof with a portion of the fluid controller 142 at least partially supported by the supplemental material as can be seen in Fig. 2, (see for example 78/80/86 which constitute supplemental material of the mattress 22/24). As for **claims 2, 5, and 68**, the inflatable device further comprises a compartment 142 surrounding the valve components including the "mechanical device", coupled to the profile of the bladder, as can be seen in Fig. 1 and 2. Thus the mechanical device is coupled to the bladder and supported by the bladder, (**claim 6**). The compartment is configured and arranged to enclose the valve, the compartment being adapted to receive pressurized fluid from a pump. As for **claim 11**, pump 82 is housed in an acoustically insulative material by virtue of the pump being surrounded by the pump housing. As for **claim 3**, the valve is a self-sealing valve and the cover 164 is adapted to prevent the valve from opening in the presence of air-pressure in the compartment. As for **claim 4**, the diaphragm and the mechanical device are configured so that when the mechanical device 170 is actuated it biases open the cover 164 and the diaphragm 174. Further, the diaphragm and the mechanical device

Art Unit: 3673

are configured so that when the mechanical device 170 is actuated it biases open the cover 164' and the diaphragm 174.

Claims 1-3, 6, 10, 11, 16, and 67-69 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Publication 2002/0194678 to Chung. As for **claims 1 and 67**, Chung '678 discloses, Fig. 9, an inflatable device comprising an inflatable bladder 92 and a fluid controller 95-99 comprising a valve 96/97 coupled to the inflatable bladder 92. The valve is configured and arranged to control the flow of fluid into and out of the bladder. The valve comprises a diaphragm 96 with a "self-closing" cover 97. A mechanical device 99 is configured and arranged to open the valve when the device is actuated. As for **claim 10**, pump is at 94 and can be seen supported by the inflatable bladder, (via 95 for example), **claim 16**. As for **claims 2, and 68**, the inflatable device further comprises a compartment, (portion of 91 as well as portion of 92), surrounding the valve components including the "mechanical device", coupled to the bladder, as can be seen in Fig. 9A. Thus the mechanical device is coupled to the bladder and supported by the bladder, (**claim 6**). The compartment is configured and arranged to enclose the valve, the compartment being adapted to receive pressurized fluid from a pump, (portion of 92 forming the "compartment as well as at least a portion of 99 forming the "compartment, for example). As for **claim 11**, pump 94 is housed in an acoustically insulative material by virtue of the pump being surrounded by the housing 91/92. As for **claim 3**, the valve is a self-sealing valve and the cover 97 is adapted to

Art Unit: 3673

prevent the valve from opening in the presence of air-pressure in the compartment, (see, for example, Figs. 9C and 9D).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bolden et al. '289 in view of U.S. Patent Publication 2002/0194678 to Chung.

Bolden '289 does not appear to specifically disclose that the compartment enclosing the valve or the compartment enclosing the pump is within the profile of the inflatable bladder. However, Chung '678 discloses an inflatable mattress arrangement with both the pump and fluid control or valve assemblies are placed with the profile of the bladder. Therefore, to have formed the Bolden et al. '289 mattress assembly with either or each of the pump and fluid control or valve assemblies are placed with the profile of the bladder 22/24, thus providing a more compact arrangement of components, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Chung '678.

Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bolden et al. '289 in view of U.S. Patent 6,098,000 to Long et al.

Long et al. teaches interchangeability between a fluid controller arrangement in which a solenoid activated valve is utilized to open and close an air cell to a pressure source for inflating the air cell or to a relief path for deflating the air cell and an arrangement in which a pilot valve acts to expose the main valve to its operable pressure in order to open and close an air cell to a pressure source for inflating the air cell or to a relief path for deflating the air cell, col. 5, line 35 to col. 6, line 13. Therefore, to have provided the Bolden et al. fluid controller 142 with an electromechanical device for manipulating the valve and cap in order to inflate or deflate the bladder 22, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Long et al. '000.

Response to Arguments

Applicant's arguments filed May 08, 2005 have been fully considered but they are not persuasive. Robbins et al. has a valve with diaphragm serving to selectively maintain fluid in the bladder. The language of the claims rejected over Robbins et al. call for "a fluid controller comprising a valve coupled to the bladder". The fluid controller, (valve), of Robbins is coupled to the bladder 10 for selectively maintaining fluid in the bladder. Element 40 of Robbins et al. does meet the term to "fluid controller" element 30 of Robbins notwithstanding. And, fluid is maintained by element 40 of Robbins et al., (including by valve therein), as is set forth in col. 5, lines 14-17.

As has been set forth in the above rejection involving Chung '678, Chung '678 does disclose a valve having a diaphragm 96 with a cover 97. The "cover" recited within the claims is merely another valve/diaphragm. Cover 97 does prevent the flow of fluid through the valve and into the bladder, when closed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Safavi whose telephone number is (571) 272-7046. The examiner can normally be reached on Mon.-Thur., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Engle can be reached on (571) 272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MICHAEL SAFAVI
PRIMARY EXAMINER
ART UNIT 354

M. Safavi
July 20, 2006